gins with a description of its anatomical basis. Then follows the portion most similar to current text-books of psychology upon reasoning and ideas, but treated with a scientific appreciation of its import not too frequently met with. A very detailed analysis of the theories attempting to explain the perception of space and time concludes this portion of the book. The third portion of the book gives a convenient account of the facts of consciousness, the laws of the association and reproduction of perceptions, a clear account of the experiments upon the time occupied by the simpler psychic acts, and of the phenomena of unconscious mental action. The fourth part deals with the feelings, and is perhaps too long in proportion to the rest of the work. Here the anthropologist speaks out most strongly, and much matter is inserted not usually considered of prime importance in a text-book. The division of topics is into the individual, the individuo-social, the social, and the æsthetic sentiments. The final portion of the book is devoted to the will, and gives a good though brief description of the various kinds of movements, of the expression of the emotions, of the development of will, and discusses from a psychological point of view the problems of free will and of responsibility.

It will be seen that the order of topics is somewhat unusual, but the merit of it can be tested only by actual trial as a text-book. The especial merits of the work consist in the brevity of its statements; in the complete absorption of the scientific method of viewing mental facts, and thus avoiding the fault most common in American psychological text-books of introducing the facts of experimental research, but leaving the whole topic unenlivened by a rejuvenating scientific interest; and in the skill and care of its presentation.

The Italian edition of the work was published in 1879, and, though the French edition has been revised, it has not derived the full benefit of the most recent studies, though this is in many cases no serious omission for a work of this kind. The object of writing the book, the author tells us, was to spread the knowledge of the modern methods of psychological research in Italy. If the students of the Italian colleges can use such a text-book as this intelligently, they must have a sounder scientific training than can be expected from the ordinary junior or senior of American colleges. This is the most serious fault of the book; or it would be, at least, for an English book of the kind. Its brevity has made it technical, and the uncertain character of several of the topics most fully treated requires a well-trained student, under the care of a skilful teacher, to insure its appreciation. Having in view the text-books more or less devoted to the exposition of a scientific psychology, recently published, it can, without hesitation, be said, that for the best selected information, most conveniently and pedagogically expressed, no better four hundred and fifty pages can be found than those of Professor Sergi's book.

NOTES AND NEWS.

FOR a number of years the deficiency in the production of mulberry-silk has drawn the attention of sericulturists to the rearing of the wild silkworms of India, China, Japan, America, and other parts; and a great many reports have been published on these wild silkworms, some of which are already bred in a state of domesticity or semi-domesticity. Reports on this subject have appeared during a succession of years in the *Journal of the Society of Arts*, London; the *Entomologist*, London; the *Bulletin de la Société d'Acclimatation de France*, Paris; and the *Isis*, Berlin. Many of these wild silkworms produce silk of great strength and beauty, and could all be profitably utilized, if bred in their native lands, on a large scale. Specimen cocoons, and carded and reeled silks of about twenty different species, have been sent to the Société d'Acclimatation, and they will be exhibited in the Paris International Exhibition of 1889, together with specimens of the moths and prepared larvæ of the various species. As it is highly important that this exhibition should be as complete as possible, Mr. Alfred Wailly of Tudor Villa, Norbiton, Surrey, Eng., has been requested by the Société d'Acclimatation to send all new specimens he can collect from abroad. He is therefore desirous that sericulturists, entomologists, and all persons wishing to contribute to the formation of this large and interesting collection of the wild silkworms of the world, should communicate with him, and he requests them to kindly send him, in small or large quantities, specimens of live cocoons, with names of food-plants for each species, whenever possible, and also specimens of the moths. Live cocoons, which are specially required for the rearing of the species, should be sent to Europe from October till about the end of March, according to distance: when sent later, especially when sent from tropical regions, the moths generally emerge during the voyage, and all is lost.

— Some large plumb-line deflections have been brought to light in the Hawaiian Islands, amounting in several cases to almost a minute of arc. During the past year fourteen latitude and three gravity stations have been occupied on the principal islands of the group. Gravity was determined by pendulum observations at the base and summit of Haleakala (ten thousand feet elevation), and also at Honolulu, thereby connecting this work with the work of 1883 done by the United States Solar Eclipse Expedition. About fifteen hundred measures of latitude were made, being an average of more than a hundred measures for each station. The greatest number of pairs observed on any one night was seventy-five. Four stations were made on the island of Hawaii, and as near as practicable they were placed north, south, east, and west of Mauna Loa, the active volcano. One latitude station was also made on the top of Haleakala. The expense of the work was borne by the Hawaiian Government Survey, and the stations were selected by the surveyor-general, Prof. W. D. Alexander. The necessary instruments were loaned by the superintendent of our Coast and Geodetic Survey. Mr. Preston, who made the observations, estimates about a year for their complete reduction and discussion.

— With the object of considering well the various forestry needs of Michigan, the last Legislature enacted a law making the members of the State Board of Agriculture an independent forestry commission. In accordance with this act, the commission will hold a forestry convention at Grand Rapids, Jan. 26 and 27, for the purpose of gathering and disseminating information, and helping to awaken an interest in this important subject.

— Rev. Ebenezer V. Cooper, missionary at Huahine, Society Islands, has communicated to the *San Francisco Bulletin* the death of Andrew Garrett as follows: "Andrew Garrett, a celebrated conchologist, died at his residence on the island of Huahine, Society Group, South Seas, on the 1st of November, 1887, in the sixty-fifth year of his age. For some months past he had suffered from a severe form of cancer in the face, which attack brought about his death. Mr. Garrett was the third child in a family of fourteen, and was born on the 9th of April, 1823, in Beaver Street, Albany, N.Y. His mother was one Joanna van Neau Companeaux, a native of Belgium, of good education, and speaking several languages; his father being a Francis Garrett, a native of Canada. Both parents lived to old age, the mother attaining seventy-two years and the father eighty-four years. The early life of Andrew Garrett was spent in Vermont State, where he very soon manifested a decided scientific turn of mind. On one occasion, at eight years of age, he left home without warning, to visit a museum some hundred miles away, which having accomplished, he returned home again in safety. He had a great fondness for travel; and to satisfy the longing, he went to sea at the age of eighteen. As a shell-collector he made his first acquaintance with the South Pacific in 1848, and in 1852 he ultimately adopted that island-studded ocean as his special field of research. Since that time Mr. Garrett has visited almost every island of note in the various groups of the South Pacific, spending considerable time in each group. His studies not only embraced shells of the marine, fresh-water, and land orders, but also birds, fishes, and other objects of natural history. He was also a botanist. For one period of ten years he was professionally engaged in the interests of the Goddefroy Museum, Hamburg, during which time was published 'Andrew Garrett's Fische der Südsee,' in six parts, edited by Dr. Albert Günther of the British Museum. Mr. Garrett was also for a time associated with Professor Agassiz. In addition to visiting and residing in every group of islands of the Southern Pacific, Mr. Garrett visited and explored many parts of the Atlantic and Pacific coasts of South

America, the East and West Indies, the Sandwich Islands, and some parts of the united seas. His diligent and learned researches soon gave him a place as an authority among conchologists, — an authority now everywhere recognized. His correspondents were very numerous, residing in all parts of the world. Mr. Garrett's private collection of shells (now on sale) consists of over eight thousand species, comprising over thirty thousand examples, and representing almost every known part of the globe. Of this large collection, Mr. Garrett has himself collected some four thousand species. The deceased was a corresponding member of the California Academy of Sciences and of the Philadelphia Academy of Natural Sciences. The following is a list of Mr. Garrett's principal writings: in Proceedings of Zoölogical Society, London, list of *Mitridæ* collected at Rarotonga, Cook's Isles; descriptions of two new species of *Separatista*, of two new species of *Cœcum*, of a new species of *Scissurella;* 'On the Terrestrial *Mollusca* of the Viti Islands:' in the *Quarterly Journal of Conchology*, Leeds, England, 'Occurrence of *Crepidula aculeata* at the Marquesan Islands;' 'Occurrence of *Gadinia reticulata* in Eastern Polynesia;' 'Annotated Catalogue of the Species of *Conus* collected in the South Sea Islands;' 'Catalogue of the Polynesian *Mitridæ*, with Remarks on their Geographical Distribution, Station, and Description of Supposed New Species;' 'Annotated Catalogue of the *Cypraoidea* collected in the South Sea Islands:' in the *Bulletin of the Société Malacologique de France* (Paris), 'On the Terrestrial *Mollusca* of the Marquesan Islands:' in the *American Journal of Conchology*, vol. vii., 'Descriptions of New Species of Land and Fresh-Water Shells from the South Sea Islands' (plates); 'List of *Viti Bulimus* and Descriptions of new Species' (plates): in the Proceedings of the California Academy of Natural Sciences, 'Descriptions of New Species of Shells inhabiting the Sandwich Islands;' 'Descriptions of New Species of Fishes inhabiting the Sandwich Islands;' 'Description of New Species of South Sea Shells:' in Proceedings of the Academy of Natural Sciences, Philadelphia, 'On the Terrestrial *Mollusca* inhabiting Cook's Islands, Society Islands, and Samoan Group;' 'List of Land-Shells inhabiting Raraturu (one of the Austral Islands), with Remarks on their Synonymes and Geographical Range;' and several other papers."

— In seven months of the year which closed Dec. 31 the Metropolitan Ayslums Board authorities of London had dealt with no fewer than 5,166 scarlet-fever patients; for 203 cases were admitted in June, 359 in July, 521 in August, 1,041 in September, 1,287 in October, 982 in November, and 773 in December. The board had at one time as many as 2,780 fever patients under treatment at one time, and, as a result of the general public utilizing to a greater extent than had ever been previously recorded the accommodation provided at the public expense, seven large hospitals had to be opened, and additional hut-accommodation provided. Fortunately the disease was not of a severe character, and the death-rate was not heavy. The admissions in September and October ranged as high as 50 and 60 per diem, but the disease has since sensibly declined. There were on the last day of 1887, 2,224 patients under treatment, suffering from fever of all kinds, but many of these patients are rapidly regaining health. One feature of the epidemic was the opening of the magnificent hospital for convalescing patients at Winchmore-hill, and another was the ready answer given to an appeal made by Miss Baker in the columns of *The London Times* for toys for the children. During 1887 London has, for the first time for many years, enjoyed an immunity from any serious amount of small-pox; for, although individual cases have occurred, very beneficial results have accrued from prompt removals and isolation of the disease.

— The *Publishers' Circular*, London, Eng., states that the total number of new books and new editions published in 1887 is not far from 500 in excess of the books of the previous year. Theology shows an increase of 60 or 70 on the last return. There are more than 100 educational works over the product of 1886, while in juvenile works the increase is less marked. Novels keep up their average of more than two per diem, Sundays included. Politico-economical books are less in number than usual, which is also the case in the department of arts and sciences, which includes illustrated volumes. In voyages, exploration, and books descriptive of countries, we find about 50 new books recorded more than for 1886, while in history and biography there is a notable rise in the issue of new works, — over 100. Poetry and the drama are about equally represented with last year. In medicine and surgery, in belle-lettres and essays, as also in miscellaneous publications, a slight increase of production is shown.

— Mrs. Ayrton, the wife of the professor at the Technical School at Kensington, England, is going to give a course of experimental lectures on the practical uses of electricity to ladies. Mrs. Ayrton was educated at Girton College.

— The general meeting of the Association for the Improvement of Geometrical Teaching, London, was held Jan. 14. The following papers were read: 'The Recent Geometry of the Triangle,' by Mr. R. F. Davis; 'On the Multiplication and Division of Concrete Quantities,' by Prof. A. Lodge; and 'On some Principles of Arithmetic,' by Mr. W. G. Bell.

— A sufficient sum has been collected for the erection of a monument at Köping, in Sweden, in memory of the celebrated chemist and apothecary, Charles William Scheele, who was born, 1742, at Stralsund, and died, 1786, at the above-named town.

— The Argentine Information Office has just published an excellent map of the Argentine Republic, on the back of which is given a short description of the country and the latest information as to its political organization, agriculture, industries, commerce, revenue, and expenditure, railways, and various other subjects of interest.

— The Government of Batavia has given notice to the admiralty that the commander of His Netherlands Majesty's ship 'Samarang' reports the existence of a low, wooded island, hitherto uncharted, lying westward of Selaru, Timor Laut Islands. The island is reported to be about two miles long in a north-north-easterly and south-south-westerly direction, and about two-thirds of a mile broad; position as given, centre of island (approximate), latitude 8° 15′ south, longitude 130° 39′ east.

— A communication from the Government of Queensland to the admiralty states that the natives of Stephen Island, on the eastern side of Great North-East Channel, Torres Strait, who were formerly very ferocious and hostile, are now thoroughly quiet: they are supplied by the Government of Queensland with a boat, and are prepared to render assistance to any passing vessel requiring their services that will hoist a flag at the mast-head. Yams, sweet-potatoes, and cocoanuts can be obtained from these natives. There is good anchorage with south-easterly winds off the north-western end of the reef surrounding Stephen's Islands. At Murray Islands a mission station is established, where shipwrecked crews will be kindly treated, and taken to Thursday Island. At Darnley Island complete confidence can now be placed in the natives.

— In *Science* of Dec. 30, 1887, p. 323, second column, 23d line from bottom, the first 'south-west' should read 'south-east.'

LETTERS TO THE EDITOR.

*** Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.*

Twenty copies of the number containing his communication will be furnished free to any correspondent on request.

The editor will be glad to publish any queries consonant with the character of the journal.

The Snow-Snake.

THE writer of an interesting article on Pocahontas, in a recent popular periodical, had evidently been reading up Morgan's works rather than early Virginia writers. The "hunting lodges, built up of mats, which they remove as they please," become "long, low houses of bark, . . . twenty families to a house." The "great fire made in a long house" becomes five, "each fire being shared by four families." The one seat at the end of Powhatan's house expands into stalls and bunks all around; and while it is said that "no one, in any household, was better off or of higher rank than his brothers or sisters," yet Powhatan is described as having "such an influence over his tribesmen that he was regarded as the head